#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 82.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018143 Address: 333 Burma Road **Date Inspected:** 06-Nov-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 500 **Project Name:** SAS Superstructure Prime Contractor: American Bridge/Fluor Enterprises, a JV **OSM Departure Time:** 1330

Contractor: Westmont Industries **Location:** Santa Fe Springs, CA.

Ruben Dominguez **CWI Name: CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** Travelers

## **Summary of Items Observed:**

The Quality Assurance Inspector Sean Vance arrived on site at Westmont Industries (WMI) in Santa Fe Springs, CA, to randomly observe the in process welding of the Travelers. The QA Inspector arrived on site to randomly observe the WMI Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

### Traveler Test Rack

On this date, The QA Inspector observed production welders Mr. Jim Muetzel (WID # 3133) and Mr. Larry Swanson continuing to perform Gas Metal Arc welding (GMAW) and fitting activities on plate material, for the Traveler Test Rack. The QA Inspector observed that the activities were being performed on the top and bottom flange plate material Complete Joint Penetration (CJP) splices, for the Box Beam Assembly 1-A1.

See attached picture below.

On this date, the QA Inspector observed production welder Mr. Michael Ruiz (WID # 3151) continuing to perform Flux Core Arc welding (FCAW) welding activities on the vertical post to base support columns and connector plates, for the Traveler Test Rack. The QA Inspector observed that the assembly appeared to be identified as Column A2, Assembly 10-B7. Reference shop drawing WMI–TTR-7.

The QA Inspector observed Mr. Ruiz performing the FCAW in various positions, throughout the shift and the weld joints appeared to be designated as fillet and flare groove welds, per the shop drawings.

On this date, the QA Inspector observed production welder Mr. Alberto Cortes (WID # 3141) continuing to

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perform Flux Core Arc welding (FCAW) welding activities on the vertical post to base support columns and connector plates, for the Traveler Test Rack. The QA Inspector observed that the assembly appeared to be identified as Column A1, Assembly 9-A7. Reference shop drawing WMI –TTR-7. The QA Inspector observed Mr. Cortes performing the FCAW in various positions, throughout the shift and the weld joints appeared to be designated as fillet and flare groove welds, per the shop drawings.

See attached picture below.

On this date, the QA Inspector observed production welder Mr. Jose Lucho (WID # 61) continuing to perform Flux Core Arc welding (FCAW) welding activities on the vertical post to base support columns and connector plates, for the Traveler Test Rack. The QA Inspector observed that the assembly appeared to be identified as Column A5, Assembly 13-E7. Reference shop drawing WMI –TTR-7.

The QA Inspector observed Mr. Lucho performing the FCAW in various positions, throughout the shift and the weld joints appeared to be designated as fillet and flare groove welds, per the shop drawings.

#### SAS-EB Traveler

**Fixed Stairs Section** 

On this date, the QA Inspector observed Westmont Industries (WMI) production welder, Mr. Jose Rodriguez (WID # 3031), continuing to perform Flux Core Arc Welding (FCAW) activities on the previously fit Frame assemblies, identified as 10-A237, 11-B237, 3-A217, 4-A218, 5-A223 and 6-A224. The QA Inspector observed throughout the shift, that the FCAW was being performed in various positions, on the connector plate and Tube Steel (TS) material fillet and flare groove welds.

See attached picture below.

### Lower Truss Section

On this date, the QA Inspector observed Westmont Industries (WMI) production welder, Mr. Daniel Grayum (WID # 3049), continuing to perform Flux Core Arc Welding (FCAW) activities on the previously fit Frame assemblies, identified as 12-A240, 13-B240, 7-A225, 8-A226 and 9-A230. The QA Inspector observed throughout the shift, that the FCAW was being performed in various positions, on the connector plate and Tube Steel (TS) material fillet and flare groove welds.

On this date, the QA Inspector observed WMI production welder Mr. Raymundo Anaya (WID # 3196), performing fitting and tacking activities on the various connector plates to Tube Steel (TS) material, for the SAS-EB Lower Truss Section assembly. The QA Inspector observed that the plate material had been previously cut to specific dimensions and the material appeared to have been previously identified, per the shop drawing Bill of Material List. The QA Inspector observed Mr. Anaya occasionally reference the nearby shop drawings and then fit and tack weld the connector plate material to previously fit TS material. The QA Inspector observed Mr. Anaya randomly perform these activities throughout the shift in addition to what appeared to be the in-process creation of weld maps, for the purpose of identifying and tracking the in process and completed welds, for the project. The QA Inspector observed that Mr. Anaya appeared to be performing the above mentioned activities with the assistance of a WMI helper.

See attached picture below.

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The QA Inspector observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the above mentioned welding and tacking activities and QC Inspector Dominguez explained that approved Welding Procedure Specifications (WPS's) were being utilized. The QA Inspector randomly observed that the applicable WPS's and copies of the shop drawings, were located near each work station, where the above mentioned FCAW and fitting activities were being performed. The QA Inspector randomly verified that the consumable material, utilized during the welding was in compliance to the applicable WPS and that the above mentioned welders were currently qualified for the applicable process and position of welding. The QA Inspector randomly observed QC Inspector Dominguez verifying the in-process welding parameters, including voltage, amperage, pre-heat and travel speed and the parameters appeared to be in compliance to the applicable WPS.





### **Summary of Conversations:**

As noted above.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Vance,Sean	Quality Assurance Inspector
Reviewed By:	Edmondson,Fred	QA Reviewer